

REMARKS

Reconsideration of the application is respectfully requested.

In the subject Office Action, claims 1, 4-7, and 10-29 have been rejected. Claims 2, 3, 8, and 9 have been objected to for depending upon rejected base claims. Accordingly, claims 1-29 remain pending in the application.

Applicant appreciatively acknowledges the Examiner's withdrawal of the finality of the previous rejection, as well as the Examiner's consideration of Applicant's arguments submitted in the response dated December 28, 2005.

Claim Objections

In "Allowable Subject Matter" item 8 on page 10, the Examiner objects to claims 2-3 and 8-9 as being dependent upon rejected base claims. While Applicant appreciates the Examiner's finding of allowable subject matter, Applicant respectfully submits that the rejected base claims are in condition for allowance. Accordingly, no amendment is required.

Claim Rejections – 35 USC § 112

In "Claim Rejections – 35 USC § 112," item 4 on page 2 of the above-identified Office Action, claims 1-16 and 23-29 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner asserts that the claims contain subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventor, at the time the application was filed, had possession of the claimed invention.

The Examiner states that “Applicant’s original disclosure” has “no language, either explicit or implicit, that would allude to the remapping being performed independent of the operating system.” While the Examiner is correct in noting that the phrase “independent of the operating system” does not appear in the original disclosure, support for this limitation is found in both the drawings and the Specification of the original disclosure. For example, Figures 3a-3b illustrate remappers implemented as combinatorial circuit elements. Such elements by their very design perform their remapping operations independent of the operating system. In addition, Figures 2a-2b illustrate an additional register and an array that store remapped privilege levels. These levels “may be ‘hard coded’ into [the] register or array, or may be loaded at power-on or reset as part of the initialization process” (page 9, lines 1-4). Thus, as illustrated by Figures 2a-2b, the remapping is performed in a predetermined fashion, independent of the operating system.

Further, the Examiner asserts that “in order to be independent of the operating system there would have to be no redesign whatsoever to the operating system,” and points out that the application allows some operating system redesign. Applicant respectfully disagrees. The invention as claimed in claim 1 recites a “control register accessible to an operating system to store a current privilege level,” in addition to the operating system independent remapper. Only the operations of the remapper are recited to be independent of the operating system. The operation of storing a CPL in a ring other than the most and least privileged rings may require some redesign of the operating system, however. See Figure 5, Figure 5’s corresponding description, and the Background section.

In addition, the Examiner suggests that claims 23-26 are not supported or enabled to operate. Specifically, the Examiner states that “independent claims 23 and 25 both detail the privilege remapper configured to remap a [CPL] using an instruction of the processor to a different [CPL], wherein the remapping is performed independent of the operating system, the

instruction, and the task. It would be impossible for one to perform remapping by using an instruction . . . wherein the remapping is performed independent of the instruction that is invoked to perform the remapping.” Applicant respectfully submits that the Examiner misreads claims 23 and 25. The instruction recited in those claims is not “invoked to perform the remapping.” Rather, as recited in claim 23, the remapper is configured to remap “a current privilege level stored into the control register by the operating system using an instruction of the processor.” Thus, prior, to remapping, the instruction stores a CPL in the control register. Accordingly, remapping is independent of the instruction.

Accordingly, Applicant submits that claims 1-16 and 23-29 are in compliance with 35 USC 112, first paragraph, and in condition for allowance.

Claim Rejections – 35 U.S.C. § 103

In “Claim Rejections – 35 USC § 103,” item 7 on page 5 of the above-identified Office Action, claims 1, 4-7, and 10-29 have been rejected as being unpatentable over U.S. Patent No. 4,949,238 to *Kamiya* (hereinafter “*Kamiya*”). Applicant respectfully traverses.

To establish obviousness under 35 U.S.C. § 103, the Examiner must view the invention as a whole. Further, the Examiner is to perform the obviousness analysis in accordance with the standard set forth by the Supreme Court in *Graham v. John Deere Co.* That standard requires that the Examiner (1) determine the scope and content of the prior art; (2) ascertain the differences between the prior art and the claims in issue; (3) resolve the level of ordinary skill in the art; and (4) evaluate evidence of secondary considerations. 383 U.S. 1, 17-18 (1966); *see also* MPEP 2141. Secondary considerations include whether the invention met with commercial success, whether the invention answered a long felt need, and whether others attempting the invention have failed. *Graham*, 383 U.S. at 17-18. Further, in applying the *Graham*

framework, the Examiner must consider the invention as a whole, without the benefit of hindsight. MPEP 2141.

Claim 1 recites:

“a control register accessible to an operating system to store a current privilege level to attribute an execution privilege level to a task for the processor; and

a privilege remapper coupled to the control register and configured to remap a current privilege level stored in the control register for the task by the operating system, to a different current privilege level attributing a different execution privilege level to the task for the processor, the remapping being performed independent of the operating system.”

In contrast, Kamiya merely teaches an apparatus for detecting a memory protection violation. The apparatus comprises in part a CPL register for storing the privilege level of an executing program and an attribute information register storing memory protection information data. The apparatus uses a detector to compare the CPL stored in the register to a CPL included in the memory protection information data. Additionally, Kamiya provides that “when the privilege level stored in the [CPL] register changes, a new privilege level value is supplied to and set in this CPL register via the bus” (col. 3, lines 31-34).

Nowhere does Kamiya teach, explicitly or implicitly, “remap[ping] a current privilege level stored in the control register for the task.” Instead, the privilege level stored in the CPL register may change simply because a new task is executing. Kamiya does not disclose remapping or changing a CPL of a task.

Accordingly, claim 1 is not obvious in view of Kamiya, and is therefore patentable over Kamiya under § 103(a).

Each of claims 7, 13, 16, 17, 19, 21, 23, 25, and 27 include in substance the recitations in claim 1. Accordingly, for at least the same reasons, claims 7, 13, 16, 17, 19, 21, 23, 25, and 27 are not obvious in view of Kamiya, and are therefore patentable over Kamiya under § 103(a).

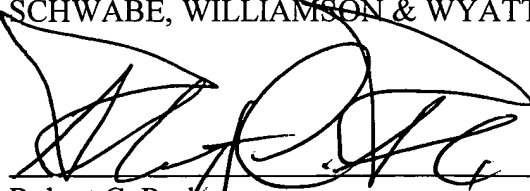
Claims 4-6, 10-12, 14-15, 18, 20, 22, 24, 26, and 28-29 are dependent on independent claims 1, 7, 13, 17, 19, 21, 23, 25, and 27, incorporating their limitations, respectively. Therefore, for at least the same reasons, claims 4-6, 10-12, 14-15, 18, 20, 22, 24, 26, and 28-29 are patentable over Kamiya, under § 103(a).

CONCLUSION

In view of the foregoing, reconsideration and allowance of claims 1-29 are solicited. Applicant submits that claims 1-29 are in condition for allowance. Accordingly, a Notice of Allowance is respectfully requested. If the Examiner has any questions concerning the present paper, the Examiner is kindly requested to contact the undersigned at (206) 407-1513. If any fees are due in connection with filing this paper, the Commissioner is authorized to charge the Deposit Account of Schwabe, Williamson and Wyatt, P.C., No. 50-0393.

Respectfully submitted,

SCHWABE, WILLIAMSON & WYATT, P.C.

A handwritten signature in black ink, appearing to be 'R. C. Peck', written over a horizontal line.

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